

REMARKS

Applicants submit claim 15 to round out the scope of the invention. Claims 2-3 and 9-10 have been canceled without prejudice. Claims 1, 4-8, and 11-15 are now pending in the application. Applicants amend claims 1, 7-8, and 14 for further clarification. No new matter has been added.

Claims 1, 4-8, and 11-14 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Correspondingly, for the same features, claims 1, 4-8, and 11-14 were rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter of the invention.

Applicants amend claims 1, 7-8, and 14 to more clearly recite the features of the invention, removing the “reference antenna” feature objected-to by the Examiner:

“...an antenna selection unit selecting antennas to be used for the diversity transmission from the plurality of antennas based on a signal condition detected by the signal condition detection unit, and selecting, from the selected antennas excepting a specified antenna, antennas of which control weights are calculated...”

At least page 18, lines 8-12 of the specification includes description of an exemplary embodiment of the above-cited-further-clarified features of the invention:

“However, in this case, the control weight of one of the selected antennas can also be fixed. Therefore, if the number of selected antennas is M, (M-1) control weights are multiplexed onto an upward channel signal as feedback data and are transmitted to the base station.”

Accordingly, Applicants respectfully request that the Examiner withdraw the § 112 rejections.

Claims 1, 5, 7-8, 12, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,754,473 to Choi et al. in view of Applicants’ Admitted Prior Art (“AAPA”); and claims 4, 6, 11, and 13 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Choi et al. in view of AAPA, and further in view of U.S. Patent No. 6,131,016 to Greenstein et al. Applicants amend claims 1 and 8 in a good faith effort to further clarify the invention as distinguished from the cited references, and respectfully traverse the rejections.

Again, the Examiner cited Choi et al. as allegedly disclosing the principal features of the claimed invention. In particular, the Examiner cited col. 5, lines 50-55 of Choi et al. as allegedly disclosing the claimed features with respect to fixing the control weight of an unselected antenna. Page 5, line 13 et seq. of the Office Action. Once again, such portions of Choi et al. only include, however, description of an antenna #1 being designated “as a reference antenna,” and an approximate phase difference index between vectors of the reference antenna #1 and another antenna #2 being calculated and transmitted back to a base station to set the weight of the antenna #2. Col. 5, lines 40-55 of Choi et al. Such portions of Choi et al. only include description of handling two antennas—fixing one reference antenna and transmitting an index back for setting the weight of the other antenna.

Correspondingly, AAPA, as cited and relied upon by the Examiner, also only includes description of handling weights in connection with two antennas, transmitting only one w_1 of two weight values w_1 and w_2 . See page 6, lines 4-9 of the Office Action.

As such, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Choi et al. and AAPA, such a combination would still have failed to disclose or suggest the claimed features of selecting antennas to be used for the diversity transmission, and further selecting, from the selected antennas excepting a specified antenna, *antennas* of which control weights are calculated.

In other words, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Choi et al. and AAPA, such a combination would still have failed to disclose or suggest,

“[a] transmitting diversity system with a base station transmitting signals from a plurality of antennas and performing diversity transmission according to feedback data transmitted from a mobile node receiving the signals, comprising:

a signal condition detection unit detecting a condition of a signal transmitted from each of the plurality of antennas;
an antenna selection unit selecting antennas to be used for the diversity transmission from the plurality of antennas based on a signal condition detected by the signal condition detection unit, and selecting, from the selected antennas excepting a specified antenna, *antennas* of which control weights are calculated; and

a control weight unit calculating the control weights applied to the antennas selected as the antennas of which the control weights are calculated, and applying the control weights to signals transmitted from the antennas selected as the antennas of which the control weights are calculated,” as recited in claim 1. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 1, together with claims 5, 7, and 15 dependent therefrom, is patentable over Choi et al. and AAPA, separately and in combination, for at least the above-stated reasons. Claim 8 incorporates features that correspond to those of claim 1 cited above, and is, therefore, together with claims 12 and 14 dependent therefrom, patentable over the cited references for at least the same reasons.

The Examiner relied upon Greenstein et al. to specifically address additional features recited in dependent claims 4, 6, 11, and 13, respectively. As such, a further combination with this reference would have failed to cure the above-described deficiencies of Choi et al. and AAPA, even assuming, arguendo, that such a further combination would have been obvious to one skilled in the art at the time the claimed invention was made. Accordingly, Applicants respectfully submit that claims 4, 6, 11, and 13, which depend from claims 1 and 8, respectively, are patentable over the cited references for at least the above-stated reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully

requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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